In the claims:

1. (Currently amended) An apparatus for encoding data in accordance with a fire code $G(x) = P(x)(1+x^c)$, where P (x) is an irreducible polynomial of the degree m, characterized in that the value for C can be freely set within predetermined limits and changed so that a code with variable redundancy can be obtained, the apparatus is formed so that it can implement a plurality of different fire codes, the different fire codes are selected for coding of input data in dependence on a control value, to produce the code with variable redundancy, and the variable redundancy produced by the fire code is used to dynamically adapt a data rate of a source data to an available band width of a respective data channel, when the data rate of the source data varies and for the data channel only fixed rates for data rate are possible, by adding additional redundancy bits.

2. (Previously presented) The apparatus according to claim 1, characterized in that the upper limit for C is predetermined by a maximal value and that the encoding apparatus has storage elements and modulo 2 adders whose number corresponds to a maximal number, and that switches are provided, by means of which the storage places and modulo 2 adders can connected together into an encoder according to the selected value C.

3. (Original) A decoder for decoding data in accordance with a fire code $G(x) = P(x)(1 + x^c)$, where $P(x)$ is an irreducible polynomial of the degree m, characterized in that the value for C can be freely set within predetermined limits.

4. (Previously presented) The decoder according to claim 3, characterized in that a disk register is provided, wherein the length of the disk register can be set as a function of the value for C.

5. (Previously presented) The decoder according to claim 4, characterized in that a second disk register is provided, whose length can be set to a value B, where in all cases, B is less than m and where B indicates the maximal number of correctable bit errors.

6. (Previously presented) A method for encoding data in accordance with a fire code $G(x) = P(x)(1+x^c)$, where $P(x)$ is an irreducible polynomial of the degree m, characterized in that the value for C can be freely set within predetermined limits and changed so that a code with variable redundancy can be obtained, and the variable redundancy produced by the fire code is used to dynamically adapt a data rate of a source data to an available band width of a respective data channel so that with only fixed

values for a data rate for the transmission channel and variable data rate of a source, transmission reliability can be increased by selecting coding and corresponding polynomials in dependence on different situation.

7. (Previously presented) A method for decoding data in accordance with a fire code $G(x) = P(x)(1 + x^c)$, where $P(x)$ is an irreducible polynomial of the degree m, characterized in that the value for C can be freely set within predetermined limits and changed so that a code with variable redundancy can be obtained, and the variable redundancy produced by the fire code is used to dynamically adapt a data rate of a source data to an available band width of a respective data channel so that with only fixed values for a data rate for the transmission channel and variable data rate of a source, transmission reliability can be increased by selecting codings and corresponding polynomials independence on different situation.

8. (Previously presented) The method according to claim 7, characterized in that the values b and d for the error correction and detection properties of the incorporated redundancy can be freely set within predetermined limits and in accordance with d=c+1-b.

Claim 9 cancelled.

10. (Previously presented) An apparatus as defined in claim 1, wherein values b and d for the error correction and detection properties of the incorporated redundancy are adapted to the respective quality of the transmission value, and the values b and d are adapted to a bit error rate of the transmission channel.

11. (Previously presented) A method as defined in claim 6, wherein values b and d for the error correction and detection properties of the incorporated redundancy are adapted to the respective quality of the transmission value, and the values b and d are adapted to a bit error rate of the transmission channel.

12. (Previously presented) A method as defined in claim 7, wherein values b and d for the error correction and detection properties of the incorporated redundancy are adapted to the respective quality of the transmission value, and the values b and d are adapted to a bit error rate of the transmission channel.